What is claimed is:

1. An electronic part mounting apparatus, for holding an electronic part with a nozzle, transferring the held electronic part to a substrate and mounting the electronic part on the substrate, comprising:

a mounting head including the nozzle;

a head moving device for moving the mounting heads relative to said substrate;

an image recognition device, provided on a moving path of the mounting heads, for photographing and recognizing an electronic part held with the nozzle;

an illumination for illuminating the electronic part by a light source selected from plural different light sources when the electronic part is photographed;

a control unit for controlling the head moving device to perform a part mounting operation in which a positioning and a mounting of the electronic part on the substrate are operated, and

an offset values storage for storing offset values used when a position correction is made during the positioning, based on the recognition result of said recognition means, for each recognition system corresponding to its own light source.

2. An electronic part mounting apparatus according to claim 1, wherein the illumination includes;

a light source for a transmission illumination in which a silhouette of an outside shape of the electronic part is presented as an image, and

a light source for a reflection illumination in which a shape of the underside of the electronic part is presented as an image.

3. An electronic part mounting apparatus according to claim 2, further comprising a mounting data storage for storing a distinction data for indicating the recognition system, selected from one of transmission illumination recognition system and the reflection illumination recognition system, to be used for recognizing positions of individual electronic parts.

4. An electronic part mounting apparatus according to claim 3, further comprising a illumination selector for selecting the transmission illumination or the reflection illumination according to the distinction data of the mounting data storage.

5. An electronic part mounting apparatus according to claim 4,

wherein the offset values storage comprising:

an offset values storage for transmission illumination

recognition, for storing offset values used for the transmission illumination recognition, and

an offset values storage for reflection illumination recognition, for storing offset values used for the reflection illumination recognition.

6. An electronic part mounting apparatus, for holding an electronic part with a nozzle, transferring the held electronic part to a substrate and mounting the electronic part on the substrate, comprising:

a mounting head including the nozzle;

a head moving means for moving the mounting heads relative to said substrate;

a recognition means, provided on a moving path of the mounting heads, for photographing and recognizing an electronic part held with the nozzle;

an illumination means for illuminating the electronic part by a light source selected from plural different light sources when the electronic part is photographed;

a control means for controlling the head moving means and controlling a part mounting operation in which a positioning and a mounting of the electronic part on the substrate are operated, and

an offset values storing means for storing offset values used when a position correction is made, at the time of said positioning, based on the recognition result of said recognition

means, for each recognition system corresponding to its own light source.

7. An electronic part mounting apparatus according to claim 1, wherein the illumination means includes;

a light source for a transmission illumination in which a silhouette of an outside shape of the electronic part is presented as an image, and

a light source for a reflection illumination in which a shape of the underside of the electronic part is presented as an image.

8. An electronic part mounting apparatus according to claim 7, further comprising a mounting data storage for storing a distinction data for indicating the recognition system, selected from one of transmission illumination recognition system and the reflection illumination recognition system, to be used for recognizing positions of individual electronic parts.

9. An electronic part mounting apparatus according to claim 3, further comprising a illumination selector for selecting the transmission illumination or the reflection illumination according to the distinction data of the mounting data storage.

10. An electronic part mounting apparatus according to claim 4,

wherein the offset values storing means comprising:

an offset values storage for transmission illumination recognition, for storing offset values used for the transmission illumination recognition, and

an offset values storage for reflection illumination recognition, for storing offset values used for the reflection illumination recognition.

11. An electronic part mounting method, for holding an electronic part with a nozzle, transferring the held electronic part to a substrate and mounting the electronic part on the substrate, comprising the steps of:

moving a mounting head which holds an electronic part with the nozzle relative to the substrate;

photographing and recognizing the electronic part held with said nozzle by a recognition means on a moving path of the mounting head;

illuminating the electronic part by a illumination means with a plurality of light sources when the electronic part is photographed in the photographing and recognizing step; and

positioning the electronic part held with said mounting head to the substrate and mounting the electronic part on said substrate;

wherein offset values used when a position correction is made, at the time of said positioning, based on the recognition result of said recognition means, are used for each recognition system corresponding to its own light source.

12. An electronic part mounting method according to claim 11, wherein when the electronic part is illuminated, a light source for a transmission illumination in which a silhouette of an outside shape of the electronic part is presented as an image, or a light source for a reflection illumination in which a shape of the underside of the electronic part is presented as an image is used.

13. An electronic part mounting method according to claim 12, further comprising the step of distinguishing a recognition system for recognizing the electronic part, and selecting an illumination system from one of a transmission illumination recognition system and a reflection illumination recognition system.

14. An electronic part mounting method according to claim 13, further comprising the step of instructing an illumination selector to select the illumination to be used according to the selected illumination system.

15. An electronic part mounting method according to claim 14,

wherein when the transmission illumination recognition system is used for recognition, an offset values for the transmission illumination recognition are used, and

when the reflection illumination recognition system is used for recognition, an offset values for the reflection illumination recognition are used.